

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

UNITED STATES OF AMERICA

v.

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

(2) TRICON MMIC, LLC, and

(3) YANZHI CHEN,

Defendants.

)
) Criminal No. 1:19-cr-10195-WGY
)

) Violations:
)

) Counts One – Four: Theft of Trade Secrets
) (18 U.S.C. §§ 1832(a)(1), (a)(2) & (a)(4))
)

) Counts Five – Eleven: Possession of a
) Trade Secret (18 U.S.C. §§ 1832(a)(3) &
) (a)(4))
)

) Counts Twelve – Fourteen: Wire Fraud;
) Aiding and Abetting
) (18 U.S.C. §§ 1343 & 2)
)

) Counts Fifteen & Sixteen: Illegal Exports of
) Controlled Technology to Taiwan
) (50 U.S.C. § 1705)
)

) Count Seventeen: Fraud and Misuse of
) Visas, Permits, and Other Documents
) (18 U.S.C. § 1546)
)

) Count Eighteen: Procurement of
) Citizenship or Naturalization Unlawfully
) (18 U.S.C. § 1425(a))
)

) Trade Secret Forfeiture Allegation:
) (18 U.S.C. §§ 981(a)(1)(C) & 2323 and
) 28 U.S.C. § 2461(c))
)

) Wire Fraud Forfeiture Allegation:
) (18 U.S.C. § 981(a)(1)(C) and
) 28 U.S.C. § 2461(c))
)

) Illegal Export Forfeiture Allegation:
) (19 U.S.C. § 1595a(d) and
) 28 U.S.C. § 2461(c))
)

SECOND SUPERSEDING INDICTMENT

General Allegations

1. HAOYANG YU (“YU”), a/k/a JACK YU, a/k/a HARRY YU, a/k/a JACK TRICON, was born in Harbin, China and first entered the United States in 2002 through the student visa program. In or about June 2009, YU obtained status as a lawful permanent resident (“LPR”) and, on or about March 8, 2017, YU became a naturalized U.S. citizen.

2. Since in or about 2013, YU has resided in Lexington, Massachusetts with his wife, YANZI CHEN (“CHEN”). CHEN is a Chinese national who obtained status as an LPR in June 2009. CHEN is legally married to YU.

YU’s Employment at Analog Devices, Inc.

3. On or about July 24, 2014, YU began working at Analog Devices, Inc. (“ADI”), as a Principal Design Engineer. YU was employed at ADI until on or about July 31, 2017. At around the same time YU started working at ADI, on or about July 22, 2014, ADI acquired Hittite Microwave Corporation (“HMC”) and its intellectual property, including its design files and associated products, for approximately two billion dollars.

4. ADI is a worldwide semiconductor company headquartered in Norwood, Massachusetts. It manufactures high performance analog, mixed-signal, and digital signal processing integrated circuits used in electronic equipment. ADI has more than 100,000 customers and sells its data converters, amplifiers and linear products, radio frequency integrated circuits, monolithic microwave integrated circuits (“MMICs”), sensors, power management products, and processing products in interstate and foreign commerce to all states and territories of the United States and to numerous countries throughout the world.

5. While employed at ADI, YU’s responsibilities included the design and development of MMICs. MMICs are a type of integrated circuit that operate at microwave frequencies and perform functions such as power amplification, low-noise amplification, and high-

frequency switching. They are used in radio, cellular, and satellite communications as well as defense and aerospace applications. As a result of his position at ADI, YU had access to data and information relating to present and future product designs, including performance data, export control specifications, schematics, design layout and modeling files, manufacturing and fabrication process files, and testing procedures.

6. To maintain a high level of innovation in its product lines, ADI has invested billions of dollars in research and development, including for the advancement of its MMICs line. ADI also has invested significant time and resources into designing, developing, and testing its products in order to remain competitive in a global market. ADI considers information and data regarding the development and design of ADI products its most important intellectual property. Among other things, ADI considers its schematic, modeling, and design layout files to be trade secrets and takes steps to protect this confidential and proprietary information.

The Defendants Established TRICON MMIC, LLC

7. In or about March 2017, approximately five months before YU resigned his employment at ADI, YU and CHEN established and began operating their own company, TRICON MMIC, LLC (“TRICON”). On or about March 15, 2017, CHEN organized TRICON as a Massachusetts limited liability company and described the business as “integrated circuit design and service” on the Certificate of Organization. According to TRICON’s website (www.triconmmic.com), it “specialize[d] in wide band MMIC amplifiers,” and served customers in “defense and aerospace, test and instrumentation, [and] satellite communications.”

8. CHEN listed the principal business address of TRICON as “1337 Massachusetts Avenue #109, Arlington, Massachusetts 02476” on the Certificate of Organization and Annual Reports for 2018 and 2019 that she filed with the Secretary of Commonwealth, Corporations Division. Similarly, “1337 Massachusetts Avenue, Suite 109, Arlington, Massachusetts” is listed

as the business address on TRICON's website. 1337 Massachusetts Avenue is the address of the United Parcel Service ("UPS") store in Arlington, Massachusetts, and # 109 was the mailbox assigned to TRICON.

9. Between in or about March 2017 and in or about June 2019, YU operated TRICON and used its website to market for sale approximately 20 ADI and HMC designs as his own. The designs and performance specifications of several of TRICON's parts were identical or virtually identical to those sold by ADI. Indeed, YU even used the same semiconductor fabrication plant or foundry as ADI located in Taiwan (the "Taiwanese Foundry"). Further, based upon the May 28, 2019, version of TRICON's website, it targeted ADI/HMC customers, claiming that TRICON could better serve such customers because ADI "has hit many customers by sudden announcements of obsolete parts." Many of the parts TRICON identified on its website as ADI obsolete parts, however, were recently developed by ADI and are still being sold by that company. For each "obsolete" ADI part that TRICON identified on its website, it listed a replacement part being sold by TRICON. These replacement parts contained performance specifications identical or substantially similar to ADI.

10. On or about May 28, 2019, the below chart appeared on TRICON's website. The HMC parts identified in the chart were acquired by ADI as part of its acquisition of Hittite in 2014.

Part Number	Description	ADI (Hittite)	Broadcom (Avago)	Data Sheet
TM5051	DC – 52 GHz Driver Amp	HMC1022 with more bandwidth	AMMC-5024 with more bandwidth	pdf
TM5052	2 – 52 GHz Driver Amp	HMC1022 with more bandwidth		pdf
TM5020	DC – 20 GHz Driver Amp	HMC465 with improved NF		pdf
TM5021	2 – 20 GHz LNA	HMC462 with improved NF	AMMC-5020 with improved NF	pdf
TM5024	DC – 20 GHz LNA	HMC460 with improved NF		pdf
TM5029	2 – 20 GHz Driver Amp	HMC464 with improved NF		pdf
TM5010	DC – 20 GHz Driver Amp	HMC465		pdf
TM5011	2 – 20 GHz LNA	HMC462		pdf
TM5014	DC – 20 GHz LNA	HMC460		pdf
TM5019	2 – 20 GHz Driver Amp	HMC464		pdf
TM5030	2 – 30 GHz LNA		AMMC-5026 with improved NF	pdf
TM5054	DC – 30 GHz PA	HMC994		pdf
TM5057	DC – 22 GHz PA	HMC797		pdf
TM5058	0.1 – 22 GHz PA	HMC998		pdf
TM5059	0.1 – 22 GHz PA	HMC907		pdf
TM7040	18 – 45 GHz Driver Amp	HMC-ALH445 with higher power	AMMC-6345	coming soon
TM7070	35 – 70 GHz Driver Amp	HMC1144		coming soon
TM7090	50 – 95 GHz Driver Amp	ADL7003		coming soon
TM7080	71 – 86 GHz E-band LNA	HMC8325		coming soon
TM7071	71 – 76 GHz PA	w/ 25dBm P1dB		coming soon
TM7081	81 – 86 GHz PA	w/ 25dBm P1dB		coming soon

11. Beginning no later than in or about October 2016, and while still working at ADI, for his own economic benefit, YU downloaded thousands of highly confidential schematic, modeling, and design layout files without authorization. He stored some of these files on personal electronic devices later found in his home. For example, forensic analysis shows personal electronic devices seized from YU's home in June 2019 contained more than 150,000 files that were ADI property. At least tens of thousands of these files had the same hash values as ADI's files. In other words, these files matched – bit-for-bit – those developed, owned, and still maintained by ADI. In addition, YU's Google Drive account contained Excel spreadsheets into which YU had copied confidential ADI trade secrets.

12. ADI's design layout files are among the most sensitive and valuable intellectual property it owns. For instance, the files associated with HMC994A — just one of the ADI parts

for which YU stole design files and marketed on his website — are worth millions of dollars, considering both the cost of the research and development and the yearly profits from the sale of that product. The HMC994A product is a wideband frequency amplifier that is used in aerospace and defense applications, fiber optics, satellite communications, and instrumentation. YU used the ADI files he stole, misappropriated, copied, downloaded, and possessed for his own company, TRICON, to market, manufacture, and sell products to customers located in the United States as well as foreign countries.

13. YU and TRICON intended to and did convert ADI's stolen trade secret information for their own economic benefit. For example, YU stole designs and information relating to an ADI amplifier known as the HMC462. YU then used these designs to manufacture TRICON part TM5021, which he advertised for sale on the Tricon website as a substitute for the HMC462.

14. In an email dated in or about April 2018, a Turkish company substantially owned and controlled by the Turkish Armed Forces Foundation contacted YU at his TRICON email address and asked him to provide price quotes for three TRICON parts, including the TM5021. A representative of the Turkish company told YU that the parts would be used in electronic warfare systems. At YU's request, the representative also estimated that the defense company could purchase about 3,750 parts in the next three years and potentially more if it used the parts in other projects.

15. On or about April 13, 2018, recognizing the "big potential" for future business, YU agreed to provide the Turkish company with three samples of his TM5021 chip. Months later, in or around December 2018, YU sold 25 copies of TRICON's TM5024 chip to the same Turkish company. These chips, like the others in TRICON's catalogue, were made using ADI's chip designs, specifically, those for its HMC460 part.

ADI Protected Its Trade Secrets

16. On or about July 31, 2017, YU had signed an agreement with ADI indicating that upon termination of his employment, he had surrendered all proprietary information or data to ADI. Nevertheless, in or about December 2018, YU had in his possession ADI files associated with confidential design techniques, layout files, production steps, customer financial information, competition strategy and marketing information, and pricing information. YU maintained these files in his Google drive account for his own economic benefit. As of June 2019, YU still had in his possession confidential ADI files associated with design techniques, modeling, layout, and other processes. YU maintained these files for his own economic benefit on various personal electronic devices that he kept in his home.

17. ADI has used a number of reasonable measures to protect its confidential and proprietary information, including trade secrets, such as:

- a. Restricting physical access to its facilities worldwide and requiring company-issued badges to access company facilities;
- b. Restricting access to ADI computer systems by controlling the devices that could connect to the ADI network, using network security mechanisms and firewalls to protect the information on the network from being exfiltrated, limiting the programs that could be installed on company devices, requiring a user name and strong password to access the corporate network, restricting access to files containing proprietary and confidential information about the design and manufacture of ADI parts to employees with a need to know;
- c. Requiring employees to sign a form acknowledging that they would not disclose or use any confidential information of ADI for their own purposes or for the benefit of any other person;

- d. Requiring any non-employee, including vendors or customers, to sign a non-disclosure agreement before sharing any ADI confidential information with them; and
- e. Requiring employees leaving the company to attend an exit interview, during which the employee is reminded of the obligation to protect ADI's confidential and proprietary information, required to acknowledge in writing that they will not use or disclose any ADI proprietary information, and required to confirm that they have surrendered to ADI any copies of any proprietary information or data in their possession.

18. On or about July 31, 2017, YU resigned from ADI and terminated his employment as its Principal Design Engineer. Between in or about August 2017 and June 2019, YU worked at a cleared defense contractor, while simultaneously operating TRICON and selling parts that were identical, or substantially similar, to ADI products and that incorporated ADI's stolen trade secrets.

The Defendants' Wire Fraud Scheme

19. Beginning in or about January 2017 and continuing until at least May 2019, the defendants employed a scheme to use false and fraudulent pretenses to acquire money and property, including TRICON-branded MMIC parts manufactured by the Taiwanese Foundry. Specifically, the defendants provided the Taiwanese Foundry with design files that YU had stolen from ADI. Not knowing that they were stolen, the Taiwanese Foundry then used these design files to manufacture TRICON's MMIC parts. YU chose to manufacture his TRICON parts at the same Taiwanese Foundry that ADI had used to manufacture its analogous parts.

20. In furtherance of this fraudulent scheme, TRICON established a business account with the Taiwanese Foundry and began doing so by emailing a customer information form. Among other things, the customer information form listed CHEN as TRICON's president, major

shareholder, and point of contact for all billing, shipping, payment, sales, and technology-related inquiries. The form printed CHEN's email address as info@triconmmic.com. In a section titled "Business Advantage," the form described TRICON as a small company whose innovations, flexibility, and lack of overhead allowed it to offer competitive prices. "More specifically, our IP gives us a leg up against our competitors in terms of some key parameters for microwave amplifiers," it said. On or about March 21, 2017, YU emailed this form and TRICON's Massachusetts certificate of organization to the Taiwanese Foundry. In his email, YU wrote that he was also copying "my partner who is the legal signatory of our LLC." The email he copied was info@triconmmic.com. YU's email went on to acknowledge that TRICON was a new company whose business advantages were "our innovative technology and design."

21. On or about June 1, 2017, while still employed at ADI, YU submitted stolen ADI files to the Taiwanese Foundry so that it would manufacture certain TRICON parts. YU attached the stolen information to an email, which asked the foundry to "treat [the information] as proprietary data." Over the next few days, the Taiwanese Foundry asked YU to make a few adjustments and to resubmit via an FTP server. On or about June 3, 2017, YU emailed the Taiwanese Foundry stating, "I've uploaded the new GDS with all the fixes." A Taiwanese Foundry employee confirmed receipt of a file named "TM50_TOP_v2.gds." The foundry's internal records show that the file was received on or about June 6, 2017. On or about the same day, CHEN signed a purchase order for the Taiwanese Foundry in the amount of \$39,960.

22. Three days later, on or about June 9, 2017, CHEN authorized an international wire for \$39,960 from TRICON's United States bank account to the Taiwanese Foundry's bank account in Taipei, Taiwan. Using ADI's stolen trade secret information – which YU had sent on or about June 1, 2017, and again on or about June 6, 2017, the Taiwanese Foundry then began manufacturing TRICON's parts

23. YU and CHEN furthered their scheme in July 2018, when they paid the Taiwanese Foundry to manufacture a second set of TRICON parts. This time, on or about July 20, 2018, YU emailed the foundry and said, “We will submit the GDS file in a day or so.” Taiwanese Foundry records show that a design file named “TC2_TOP” arrived on or about July 23, 2018. On or about July 19, 2018, TRICON issued a purchase order to the Taiwanese Foundry in the amount of \$36,900. Less than a week later, on or about July 25, 2018, CHEN authorized an international wire for \$36,900 from TRICON’s United States bank account to the Taiwanese Foundry’s bank account in Taipei, Taiwan. A signature with CHEN’s name appeared on the wire instructions. Using ADI’s stolen trade secret information – which YU had sent on or about July 23, 2018, the Taiwanese Foundry then began manufacturing a new set of TRICON parts.

The Defendants’ Export of Commerce Controlled Goods

24. The files that TRICON transferred to the Taiwanese Foundry on or about July 23, 2018, contained, among other things, the technology necessary to manufacture two products – the TM5051 and the TM5052. The U.S. Department of Commerce controls the export of this technology from the United States for national security reasons.

25. In general, except for items exclusively controlled for export and re-export by the Department of State, all items made, wholly or in part, in the United States, wherever located, are subject to the Export Administration Regulations (“EAR”), Title 15, Code of Federal Regulations, Parts 730-774. The Department of Commerce promulgates the Export Administration Regulations and maintains the Commodity Control List, which identifies the most sensitive items subject to the EAR that, depending on a number of factors, require export licenses prior to shipment outside of the United States.

26. The EAR limits the export of those goods and technology that the Secretary of Commerce deems could significantly contribute to the military potential of other countries, could

prove detrimental to the national security of the United States, or are contrary to the foreign policy of the United States. For example, the EAR controls exports and re-exports of “dual-use” items, commercial items that also have a military or nuclear proliferation application. Some of these items and technology are controlled for national security reasons and designated with Export Control Classification Numbers (“ECCNs”) 3A001 and 3E001. With limited exceptions, the EAR prohibits any person from exporting or causing the export from the United States of these items and related technology to Taiwan unless an export license is first obtained from the U.S. Department of Commerce.

27. At all relevant times, the EAR defined “technology” as information necessary for “the development, production, use, operation, installation, maintenance, repair, overhaul, or refurbishing” of an item. According to the EAR, technology may be in any tangible or intangible form, such as “written or oral communications, blueprints, drawings, photographs, plans, diagrams, models, formulae tables, engineering designs and specifications, computer-aided design files, manuals or documentation, electronic media or information revealed through visual inspection.” 15 C.F.R. § 772. The files that YU exported to the Taiwanese Foundry on or about July 23, 2018 constitute “technology” within the meaning of the EAR.

28. At all times material to the Second Superseding Indictment, the Department of Commerce required a license for the export to Taiwan of Gallium arsenide (“GaAs”) MMIC distributed amplifiers bearing TRICON part numbers TM5051 and TM5052 and the technology required for the development and production of these parts. There were no applicable license exceptions for exports of these items or their technology. YU and TRICON knew that these parts and their related technology required export licenses. The ADI part whose files YU had stolen to make the TM5051 and TM5052 was export controlled. In addition, the TRICON website

advertised these parts as classified under ECCN “3A001.” Below is a portion of the relevant table as it appeared on the TRICON website on May 28, 2019:

Part Number	Frequency (GHz)	P1dB (dBm)	Psat (dBm)	Gain (dB)	OIP3 (dBm)	NF (dB)	Single Bias	VDD (V)	IcQ (mA)	Data Sheet	ECCN Classification
TM5051	DC - 52	21	23	12	NT	3		8	105	pdf	3A001.b.2.d
TM5052	2 - 52	20	22	12	NT	3	Yes	10	110	pdf	3A001.b.2.d

29. No agent of TRICON (including YU or CHEN) ever applied for or obtained a license from the Department of Commerce to export GaAs MMIC distributed amplifiers bearing part numbers TM5051 and TM5052 or their related technology to Taiwan. Nevertheless, YU did export the technology required for the production and manufacture of these parts when he electronically sent the files to the Taiwanese Foundry on or about July 23, 2018, in violation of 50 U.S.C. § 1705, 15 C.F.R. §§ 736.2(b)(10), 758.1, 764.2, and Executive Order 13222.

YU's Immigration Fraud Scheme

30. On or about March 1, 2016, YU submitted an Application for Naturalization, also known as a Form N-400, to the U.S. Department of Homeland Security. On Part 11 of the Form N-400, YU answered “no” to the question of whether he had “ever committed, assisted in committing, or attempted to commit, a crime or offense for which ... [he] was not arrested.” In response to Question 31 of Part 11, YU answered “no” to the question of whether he had ever given any U.S. government official any information or documentation that was false or misleading. Finally, in response to Question 32 of Part 11, YU answered “no” to the question of whether he had “ever lied to any U.S. Government official to gain entry or admission into the United States or to gain immigration benefits while in the United States.” YU signed the Form N-400 and certified “under penalty of perjury” that his answers were “true and accurate.”

31. On or about February 15, 2017, YU was interviewed under oath by a U.S. Citizenship and Immigration Services adjudication officer in connection with his Application for Naturalization. During the interview, YU affirmed his answers to the questions in the Form N-

400, including his answers to the questions set forth in Part 11. At the time, YU knew that his answers to Questions 22, 31 and 32 of Part 11 were false because he had previously and unlawfully copied and downloaded trade secrets owned by ADI. Nonetheless, YU once again signed the Form N-400 and falsely certified “under penalty of perjury under the laws of the United States” that its contents were true and correct.

32. Based on the false information that he provided in his Application for Naturalization, YU became a naturalized United States citizen on or about March 8, 2017.

COUNTS ONE THROUGH FOUR
Theft and Attempted Theft of Trade Secrets
(18 U.S.C. §§ 1832(a)(1), (a)(2) & (a)(4))

The Grand Jury charges:

33. The allegations contained in paragraphs 1 through 32 of this indictment are re-alleged and incorporated as if set forth fully herein.

34. Between in or about September 2016 and July 2017, in the District of Massachusetts, the defendant,

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

with the intent to convert a trade secret to the economic benefit of a person other than ADI, and intending and knowing that the offense would injure ADI, did knowingly steal, and without authorization appropriate, copy, duplicate, download, upload, and replicate, and did attempt to do so, trade secrets owned by ADI, specifically, information and data contained in computer files and specified in each count below, which was related to a product used in and intended for use in interstate and foreign commerce:

Count	Description of Trade Secret
1	Performance data and specifications, schematics, design layout and modeling files, manufacturing and fabrication process files, and testing procedures for MMIC part HMC994A;
2	Performance data and specifications, schematics, design layout and modeling files, manufacturing and fabrication process files, and testing procedures for MMIC part HMC462;
3	Performance data and specifications, schematics, design layout and modeling files, manufacturing and fabrication process files, and testing procedures for MMIC part HMC465; and
4	Performance data and specifications, schematics, design layout and modeling files, manufacturing and fabrication process files, and testing procedures for MMIC part ADL7003.

All in violation of Title 18, United States Code, Sections 1832(a)(1), (a)(2) and (a)(4).

COUNTS FIVE THROUGH ELEVENPossession and Attempted Possession of Trade Secrets
(18 U.S.C. §§ 1832(a)(3) & (a)(4))

The Grand Jury further charges:

35. The allegations contained in paragraphs 1 through 32 of this indictment are re-alleged and incorporated as if set forth fully herein.

36. On or about the dates listed below as to each count, in the District of Massachusetts, the defendant,

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

with the intent to convert a trade secret to the economic benefit of a person other than ADI, and intending and knowing that the offense would injure ADI, did knowingly possess a trade secret owned by ADI, knowing the same to have been stolen and appropriated, obtained, and converted without authorization, and did attempt to do so, which was related to a product used in and intended for use in interstate and foreign commerce. Specifically, these trade secrets were information and data contained in the small laptop and Seagate external hard drive located in YU's home office on or about June 14, 2019, and in the computer files located on his Google Drive account on or about December 7, 2018, as specified in each count below:

Count	Approximate Date	Description
5	June 14, 2019	An ADI GDS file titled "K8600_TOP.gds" and containing, among other things, design files for numerous parts including HMC797, HMC863, HMC906, HMC907, HMC930, HMC994, HMC998, and HMC1022;
6	June 14, 2019	An ADI GDS file titled "_J2001_Layout" and containing, among other things, design files for part HMC8415;
7	June 14, 2019	An ADI GDS file titled "F3000_93AMGM1_21jan13" and containing, among other things, design files for parts HMC1086 and HMC1087;
8	December 7, 2018	An excel spreadsheet titled "temp.xlsx" and containing contents of product modeling files generated by ADI's GaAs

		modeling group that was located in a restricted access portion of ADI's computer network;
9	December 7, 2018	An excel spreadsheet titled "projects.xlsx" and containing, among other things, design techniques, production steps, manufacturing details and processes, pricing and financial information, and marketing information pertaining to numerous ADI parts including HMC1114, HMC7203/4, HMC994, HMC7950, HMC998, HMC863, HMC8257, HMC8205, HMC907, HMC797, and ADL7003;
10	December 7, 2018	A power point file titled "2014-now.pptx" and containing, among other things, information from a design file for a ADI HMC8257 amplifier; and
11	December 7, 2018	An excel spreadsheet titled "status.xlsx" and containing customer financial information including ADI parts sold to each customer, the quantity of each ADI part purchased, and the price charged to each customer for each ADI part.

All in violation of Title 18, United States Code, Sections 1832(a)(3) and 1832(a)(4).

COUNTS TWELVE THROUGH FOURTEEN

Wire Fraud; Aiding and Abetting
(18 U.S.C. §§ 1343 and 2)

The Grand Jury further charges:

37. The allegations contained in paragraphs 1 through 32 are hereby re-alleged and incorporated by reference as if fully set forth herein.

38. On or about the dates listed below as to each count, in the District of Massachusetts and elsewhere, the defendants,

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

(2) TRICON MMIC, LLC, and

(3) YANZHI CHEN,

having devised and intended to devise a scheme and artifice to defraud, and for obtaining money and property, to wit, MMIC parts manufactured by the Taiwanese Foundry, by means of materially false and fraudulent pretenses, representations and promises, did transmit and cause to be transmitted by means of wire communications in interstate and foreign commerce, writings, signs, signals, pictures, and sounds for the purpose of executing the scheme and artifice to defraud, as set forth below:

Count	Approximate Date	Description
12	March 21, 2017	Email transfer of customer information form to Taiwanese Foundry.
13	June 9, 2017	Wire transfer of \$39,960 from TRICON's bank account in the United States to Taiwanese Foundry's bank account in Taipei, Taiwan.
14	July 25, 2018	Wire transfer of \$36,900 from TRICON's bank account in the United States to Taiwanese Foundry's bank account in the Taipei, Taiwan.

All in violation of Title 18, United States Code, Sections 1343 and 2.

COUNTS FIFTEEN & SIXTEEN
 Illegal Exports of Controlled Technology to Taiwan
 (50 U.S.C. § 1705)

The Grand Jury further charges:

39. The allegations contained in paragraphs 1 through 32 are hereby re-alleged and incorporated by reference as if fully set forth herein.

40. On or about the dates listed below as to each count, in the District of Massachusetts and elsewhere, the defendants

(1) HAOYANG YU,
 a/k/a JACK YU,
 a/k/a HARRY YU,
 a/k/a JACK TRICON, and

(2) TRICON MMIC, LLC,

did knowingly and willfully export and cause to be exported, from the United States to Taiwan, technology associated with TRICON part numbers TM5051 and TM5052, without having first obtained the required export licenses from the Department of Commerce:

Count	Approximate Date of Export	Item Description
15	July 23, 2018	Technology associated with Tricon part number TM5051
16	July 23, 2018	Technology associated with Tricon part number TM5052

All in violation of Title 50, United States Code, Section 1705, Title 15, Code of Federal Regulations, Sections 736.2(b)(1) and 764.2, and Executive Order 13222.

COUNT SEVENTEEN

Visa Fraud
(18 U.S.C. § 1546(a))

The Grand Jury further charges:

41. The allegations contained in paragraphs 1 through 32 are hereby re-alleged and incorporated by reference as if fully set forth herein.

42. On or about February 15, 2017, in the District of Massachusetts and elsewhere, the defendant,

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

did knowingly make under oath, and did knowingly subscribe as true under penalty of perjury under 28 U.S.C § 1746, a false statement with respect to a material fact in an application and document required by the immigration laws and regulations prescribed thereunder, and did knowingly present such application and document, which contained a false statement and which failed to contain any reasonable basis in fact. Specifically, the defendant did knowingly prepare, sign and present a Form N-400, Application for Naturalization, which:

- (a) falsely stated that he had never committed a crime or offense for which he was not arrested;
- (b) falsely stated that he had never given any U.S. government official any information or documentation that was false, fraudulent, or misleading; and
- (c) falsely stated that he had never given false or misleading information to any U.S. government official while applying for any immigration benefit.

All in violation of Title 18, United States Code, Section 1546(a).

COUNT EIGHTEEN
Procurement of Citizenship Unlawfully
(18 U.S.C. § 1425(a))

The Grand Jury further charges:

43. The allegations contained in paragraphs 1 through 32 are hereby re-alleged and incorporated by reference as if fully set forth herein.

44. On or about February 15, 2017, in the District of Massachusetts and elsewhere, the defendant,

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

knowingly procured and attempted to procure his own naturalization contrary to law by knowingly providing false and fraudulent information as to material facts in his Application for Naturalization, to wit:

- (a) falsely stating that he had never committed a crime or offense for which he was not arrested;
- (b) falsely stating that he had never given any U.S. government official any information or documentation that was false, fraudulent, or misleading; and
- (c) falsely stating that he had never given false or misleading information to any U.S. government official while applying for any immigration benefit.

All in violation of Title 18, United States Code, Section 1425(a).

THEFT OF TRADE SECRETS FORFEITURE ALLEGATION
(18 U.S.C. § 981(a)(1)(C), 2323 and 28 U.S.C. § 2461)

45. Upon conviction of one or more of the offenses in violation of Title 18, United States Code, Section 1832, set forth in Counts One through Eleven, the defendant

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

shall forfeit to the United States, pursuant to Title 18, United States Code, Section 981(a)(1)(C), and Title 28, United States Code, Section 2461(c), any property, real or personal, which constitutes or is derived from proceeds traceable to the offenses, and shall forfeit to the United States, pursuant to Title 18, United States Code, Section 2323:

- a. any article, the making or trafficking of which is, prohibited under section 506 of title 17, or section 2318, 2319, 2319A, 2319B, or 2320, or chapter 90, of this Title 18;
- b. any property used, or intended to be used, in any manner or part to commit or facilitate the commission of the offense; and
- c. any property constituting or derived from any proceeds obtained directly or indirectly as a result of the commission of the offense.

46. If any of the property described in Paragraph 44, above, as being forfeitable pursuant to Title 18, United States Code, Sections 981(a)(1)(C) and 2323 and Title 28, United States Code, Section 2461(c), as a result of any act or omission of the defendant --

- a. cannot be located upon the exercise of due diligence;
- b. has been transferred or sold to, or deposited with, a third party;
- c. has been placed beyond the jurisdiction of the Court;
- d. has been substantially diminished in value; or
- e. has been commingled with other property which cannot be divided without difficulty;

it is the intention of the United States, pursuant to Title 18, United States Code, Section 2323(b)(2)(A) and Title 28, United States Code, Section 2461(c), both incorporating Title 21, United States Code, Section 853(p), to seek forfeiture of any other property of the defendant up to the value of the property described in Paragraph 44 above.

All pursuant to Title 18, United States Code, Sections 981(a)(1)(C) and 2323 and Title 28 United States Code, Section 2461(c).

WIRE FRAUD FORFEITURE ALLEGATION
(18 U.S.C. § 981(a)(1)(C) and 28 U.S.C. § 2461(c))

47. Upon conviction of one or more of the offenses in violation of Title 18, United States Code, Section 1343, set forth in Counts Twelve through Fourteen, the defendants

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON,

(2) TRICON MMIC, LLC, and

(3) YANZHI CHEN,

shall forfeit to the United States, pursuant to Title 18, United States Code, Section 981(a)(1)(C), and Title 28, United States Code, Section 2461(c), any property, real or personal, which constitutes or is derived from proceeds traceable to the offenses.

48. If any of the property described in Paragraph 46, above, as being forfeitable pursuant to Title 18, United States Code, Section 981(a)(1)(C), and Title 28, United States Code, Section 2461(c), as a result of any act or omission of the defendants --

- a. cannot be located upon the exercise of due diligence;
- b. has been transferred or sold to, or deposited with, a third party;
- c. has been placed beyond the jurisdiction of the Court;
- d. has been substantially diminished in value; or
- e. has been commingled with other property which cannot be divided without difficulty;

it is the intention of the United States, pursuant to Title 28, United States Code, Section 2461(c), incorporating Title 21, United States Code, Section 853(p), to seek forfeiture of any other property of the defendants up to the value of the property described in Paragraph 46 above.

All pursuant to Title 18, United States Code, Section 981(a)(1)(C), and Title 28, United States Code, Section 2461(c).

ILLEGAL EXPORTS FORFEITURE ALLEGATION
(19 U.S.C. § 1595a(d) and 28 U.S.C. § 2461(c))

49. Upon conviction of one or more of the offenses in violation of Title 50, United States Code, Section 1705, set forth in Counts Fifteen through Sixteen, the defendants

(1) HAOYANG YU,
a/k/a JACK YU,
a/k/a HARRY YU,
a/k/a JACK TRICON, and

(2) TRICON MMIC, LLC,

shall forfeit to the United States, pursuant to Title 19, United States Code, Section 1595a(d), and Title 28, United States Code, Section 2461(c), any merchandise exported or sent from the United States or attempted to be exported or sent from the United States in violation of Title 50, United States Code, Section 1705, or the proceeds or value thereof, and property used to facilitate the exporting or sending of such merchandise, the attempted exporting or sending of such merchandise, or the receipt, purchase, transportation, concealment, or sale of such merchandise prior to exportation.

50. If any of the property described in Paragraph 48, above, as being forfeitable pursuant to Title 19, United States Code, Section 1595a(d), and Title 28, United States Code, Section 2461(c), as a result of any act or omission of the defendants --

- f. cannot be located upon the exercise of due diligence;
- g. has been transferred or sold to, or deposited with, a third party;
- h. has been placed beyond the jurisdiction of the Court;
- i. has been substantially diminished in value; or
- j. has been commingled with other property which cannot be divided without difficulty;

it is the intention of the United States, pursuant to Title 28, United States Code, Section 2461(c), incorporating Title 21, United States Code, Section 853(p), to seek forfeiture of any other property of the defendants up to the value of the property described in Paragraph 46 above.

All pursuant to Title 19, United States Code, Section 1595a(d), and Title 28, United States Code, Section 2461(c).

A TRUE BILL


FOREPERSON OF THE GRAND JURY

A2IBL
AMANDA BECK
JASON A. CASEY
JOHN CAPIN
ASSISTANT U.S. ATTORNEYS
DISTRICT OF MASSACHUSETTS

District of Massachusetts: October 13, 2021
Returned into the District Court by the Grand Jurors and filed.

/s/ Noreen A. Russo

DEPUTY CLERK

10/13/21 at 3:47 PM

Date and Time

